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DATE MAILED: 02/05/2010

### NOTICE OF ALLOWANCE AND FEE(S) DUE

27799 7590 020872010
COHEN, PONTANI, LIEBERMAN & PAVANE LLP
551 FIFTH AVENUE
SUITE 1210

EXAMINER						
BORSETTI, GREG						
ART UNIT	PAPER NUMBER					
2626	•					

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,243	07/03/2006	Vincent Barriac	5284-66PUS	8009
TITLE OF INVENTION:	METHOD AND DEVICES	FOR EVALUATING TRANSMISSION TIMES AND FO	R PROCESING A VOICE	SIGNAL

RECEIVED IN A TERMINAL CONNECTED TO A PACKET NETWORK

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	05/05/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

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If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

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II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

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NEW YORK, N	Y 10176							(Depositor's name)
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nonprovisional	NO	\$1510	\$300		\$0		\$1810	05/05/2010
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BORSETT	T, GREG	2626	704-217000	,	•			
"Fee Address" indi- PTO/SB/47; Rev 03-02 Number is required.  3. ASSIGNEE NAME AN		" Indication form ed. Use of a Custom A TO BE PRINTED (	ce or agents OR, a  (2) the name of registered attors 2 registered pate listed, no name  ON THE PATENT (pri	ternative a single ney or a ent attor will be nt or typ	e firm (having as a agent) and the name meys or agents. If r printed.	membes of up to nam	er a 2 o to e is 3	
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551 FIFTH AVEN	UE	ART UNIT	PAPER NUMBER			
SUITE 1210 NEW YORK, NY	10176	2626 DATE MAILED: 02/05/201	0			

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 121 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 121 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

## Application No. Applicant(s) 10/564,243 BARRIAC ET AL. Notice of Allowability Examiner Art Unit GREG A BORSETTI 2626 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to remarks (12/8/2009). 2. The allowed claim(s) is/are 1-23. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). b) ☐ Some\* c) ☐ None of the: 1. A Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). \* Certified copies not received: \_\_\_\_\_. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. Examiner's Amendment/Comment Paper No./Mail Date 4. ☐ Examiner's Comment Regarding Requirement for Deposit 8. X Examiner's Statement of Reasons for Allowance of Biological Material 9. ☐ Other . /Greg A. Borsetti/ Examiner, Art Unit 2626

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DETAILED ACTION

Response to Amendment

1. Claims 1-23 are pending.

2 Claims 19-20 have been amended.

The 35 USC 101 rejections to claims 19-20 have been withdrawn in view of the

amendments received 12/8/2009.

Allowable Subject Matter

4. The following is an examiner's statement of reasons for allowance:

As per claim 1, the closest known prior art fails to teach or fairly suggest, alone or in reasonable combination:

A method for evaluating a processing delay of a speech signal contained in data packets received in a receiver terminal during a voice call to a terminal sending said data packets over a packet-switched network, the receiver terminal having a telephony module which generates a reconstituted speech signal from the received data packets, said method comprising the steps of:

obtaining, at the receiver terminal, a stream of audio packets from the received data packets and decoding the audio packet stream within a predetermined decoding time to reconstitute a first speech signal from the received packets of the audio stream;

duplicating, at the receiver terminal, at least a portion of the speech signal reconstituted by the telephony module to constitute a second speech signal:

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determining, at the receiver terminal, a time difference between the first speech signal and the second speech signal; and

calculating, at the receiver terminal, the processing delay of the speech signal contained in the data packets received in the receiver terminal from at least the determined time difference between said first and second speech signals and said predetermined decoding time.

Galetto et al. teaches the determination of speech latency across a communication network element having an input interface and an output interface includes allocating a timestamp to the data packets of a sample of data packets representing a speech signal at the two interfaces, recording the timestamps together with the corresponding data packets, decoding the recorded data packets at both interfaces to generate respective envelopes in the time domain, cross-correlating the envelopes to determine correlating areas of the envelopes, and determining a value for the speech latency between the interfaces from the timestamps associated with correlating areas of the envelopes. (Abstract) Galetto, however, fails to teach the limitation of duplicating, at the receiver terminal, at least a portion of the speech signal reconstituted by the telephony module to constitute a second speech signal. Galetto, therefore, also fails to teach the subsequent limitations involving the calculation of the processing delay of the speech signal because the first and second speech signals are not both generated at the receiver terminal.

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Psytechnics teaches a determination of end-to-end delay based on the additional information about the delay estimate from RTCP packets, coding and packetization delay, jitter delay, and access delay from both the send and receive side. (Pages 2-3) Psytechnics, however, fails to teach the limitation of duplicating, at the receiver terminal, at least a portion of the speech signal reconstituted by the telephony module to constitute a second speech signal. Psytechnics, therefore, also fails to teach the subsequent limitations involving the calculation of the processing delay of the speech signal because the first and second speech signals are not both generated at the receiver terminal

Kirla teaches the calculation of the transmission delay of a packet-switched network by using a Ping technique. (col. 8, lines 36-40) Kirla, however, fails to teach the limitation of duplicating, at the receiver terminal, at least a portion of the speech signal reconstituted by the telephony module to constitute a second speech signal. Kirla, therefore, also fails to teach the subsequent limitations involving the calculation of the processing delay of the speech signal because the first and second speech signals are not both generated at the receiver terminal.

Schaffer teaches sending end-to-end delay information over a packet-switched network to a collection server configured to manage end-to-end delay information sent by a plurality of communication terminals connected to a network. (col. 2, lines 32-35) Schaffer, however, fails to teach the limitation of duplicating, at the receiver terminal, at least a portion of the speech signal reconstituted by the telephony module to constitute a second speech signal. Schaffer, therefore, also fails to teach the subsequent

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limitations involving the calculation of the processing delay of the speech signal because the first and second speech signals are not both generated at the receiver terminal.

Claims 2-13 are also considered allowable for depending on, and further limiting, allowable claim 1.

As per claim 14, the closest known prior art fails to teach or fairly suggest, alone or in reasonable combination.

A device for evaluating a processing delay of a speech signal contained in data packets received in a receiver terminal during a voice call to a terminal sending said data packets over a packet-switched network, the receiver terminal having a telephony module which generates a reconstituted speech signal from the received data packets, said device comprising:

a network filter module configured to obtain, at the receiver terminal, a stream of audio packets from the received data packets:

a control decoder module having a predetermined decoding time for decoding the stream of audio packets obtained and for reconstituting a first speech signal from the received packets of the audio stream;

an audio filter module configured to duplicate, at the receiver terminal, at least a portion of the speech signal reconstituted by the telephony module, the duplicated portion of the speech signal constituting a second speech signal;

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means for determining, at the receiver terminal, a time difference between the first speech signal and the second speech signal; and

means for calculating, at the receiver terminal, the processing delay of the speech signal contained in data packets received in the receiver terminal from at least the determined time difference between said first and second speech signals and the predetermined decoding time.

Galetto et al. teaches the determination of speech latency across a communication network element having an input interface and an output interface includes allocating a timestamp to the data packets of a sample of data packets representing a speech signal at the two interfaces, recording the timestamps together with the corresponding data packets, decoding the recorded data packets at both interfaces to generate respective envelopes in the time domain, cross-correlating the envelopes to determine correlating areas of the envelopes, and determining a value for the speech latency between the interfaces from the timestamps associated with correlating areas of the envelopes. (Abstract) Galetto, however, an audio filter module configured to duplicate, at the receiver terminal, at least a portion of the speech signal reconstituted by the telephony module, the duplicated portion of the speech signal constituting a second speech signal. Galetto, therefore, also fails to teach the subsequent limitations involving the calculation of the processing delay of the speech signal because the first and second speech signals are not both generated at the receiver terminal

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Psytechnics teaches a determination of end-to-end delay based on the additional information about the delay estimate from RTCP packets, coding and packetization delay, jitter delay, and access delay from both the send and receive side. (Pages 2-3) Psytechnics, however, an audio filter module configured to duplicate, at the receiver terminal, at least a portion of the speech signal reconstituted by the telephony module, the duplicated portion of the speech signal constituting a second speech signal. Psytechnics, therefore, also fails to teach the subsequent limitations involving the calculation of the processing delay of the speech signal because the first and second speech signals are not both generated at the receiver terminal.

Kirla teaches the calculation of the transmission delay of a packet-switched network by using a Ping technique. (col. 8, lines 36-40) Kirla, however, an audio filter module configured to duplicate, at the receiver terminal, at least a portion of the speech signal reconstituted by the telephony module, the duplicated portion of the speech signal constituting a second speech signal. Kirla, therefore, also fails to teach the subsequent limitations involving the calculation of the processing delay of the speech signal because the first and second speech signals are not both generated at the receiver terminal.

Schaffer teaches sending end-to-end delay information over a packet-switched network to a collection server configured to manage end-to-end delay information sent by a plurality of communication terminals connected to a network. (col. 2, lines 32-35) Schaffer, however, an audio filter module configured to duplicate, at the receiver terminal, at least a portion of the speech signal reconstituted by the telephony module,

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the duplicated portion of the speech signal constituting a second speech signal.

Schaffer, therefore, also fails to teach the subsequent limitations involving the calculation of the processing delay of the speech signal because the first and second speech signals are not both generated at the receiver terminal.

Claims 15-18, 21-23 are also considered allowable for depending on, and further limiting, allowable claim 14.

As per claim 19, the closest known prior art fails to teach or fairly suggest, alone or in reasonable combination,

A computer-readable storage medium encoded with a computer program executed by a computer that causes evaluation of a processing delay of a speech signal contained in data packets received in a receiver terminal during a voice call to a terminal sending said data packets over a packet-switched network, the receiver terminal having a telephony module which generates a reconstituted speech signal from the received data packets, the computer program comprising:

program code for obtaining, at the receiver terminal, a stream of audio packets from the received data packets and decoding the audio packet stream within a predetermined decoding time to reconstitute a first speech signal from the received packets of the audio stream;

program code for duplicating, at the receiver terminal, at least a portion of the speech signal reconstituted by the telephony module to constitute a second speech

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signal;

program code for determining, at the receiver terminal, a time difference between the first speech signal and the second speech signal; and

program code for calculating, at the receiver terminal, the processing delay of the speech signal contained in the data packets received in the receiver terminal from at least the determined time difference between said first and second speech signals and said predetermined decoding time.

Galetto et al. teaches the determination of speech latency across a communication network element having an input interface and an output interface includes allocating a timestamp to the data packets of a sample of data packets representing a speech signal at the two interfaces, recording the timestamps together with the corresponding data packets, decoding the recorded data packets at both interfaces to generate respective envelopes in the time domain, cross-correlating the envelopes to determine correlating areas of the envelopes, and determining a value for the speech latency between the interfaces from the timestamps associated with correlating areas of the envelopes. (Abstract) Galetto, however, an audio filter module configured to duplicate, at the receiver terminal, at least a portion of the speech signal reconstituted by the telephony module, the duplicated portion of the speech signal constituting a second speech signal. Galetto, therefore, also fails to teach the subsequent limitations involving the calculation of the processing delay of the speech

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signal because the first and second speech signals are not both generated at the receiver terminal.

Psytechnics teaches a determination of end-to-end delay based on the additional information about the delay estimate from RTCP packets, coding and packetization delay, jitter delay, and access delay from both the send and receive side. (Pages 2-3) Psytechnics, however, an audio filter module configured to duplicate, at the receiver terminal, at least a portion of the speech signal reconstituted by the telephony module, the duplicated portion of the speech signal constituting a second speech signal. Psytechnics, therefore, also fails to teach the subsequent limitations involving the calculation of the processing delay of the speech signal because the first and second speech signals are not both generated at the receiver terminal.

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Schaffer teaches sending end-to-end delay information over a packet-switched network to a collection server configured to manage end-to-end delay information sent by a plurality of communication terminals connected to a network. (col. 2, lines 32-35)

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Schaffer, however, an audio filter module configured to duplicate, at the receiver terminal, at least a portion of the speech signal reconstituted by the telephony module, the duplicated portion of the speech signal constituting a second speech signal. Schaffer, therefore, also fails to teach the subsequent limitations involving the calculation of the processing delay of the speech signal because the first and second speech signals are not both generated at the receiver terminal.

As per claim 20, the closest known prior art fails to teach or fairly suggest, alone or in reasonable combination.

A computer-readable storage medium encoded with a computer program executed by a computer that causes evaluation of a processing delay of a speech signal contained in data packets received in a receiver terminal during a voice call to a terminal sending said data packets over a packet-switched network, the receiver terminal having a telephony module which generates a reconstituted speech signal from the received data packets, the computer program comprising:

program code for obtaining, at the receiver terminal, a stream of audio packets from the received data packets and decoding the audio packet stream within a predetermined decoding time to reconstitute a first speech signal from the received packets of the audio stream;

program code for duplicating, at the receiver terminal, at least a portion of the speech signal reconstituted by the telephony module to constitute a second speech signal:

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program code for determining, at the receiver terminal, a time difference between the first speech signal and the second speech signal; and

program code for calculating, at the receiver terminal, the processing delay of the speech signal contained in the data packets received in the receiver terminal from at least the determined time difference between said first and second speech signals and said predetermined decoding time; and

program code for evaluating the calculated processing delay of the speech signal in the terminal to evaluate end-to-end transmission delay of the speech signal contained in the data packets received in the receiver terminal during the voice call to the receiver terminal sending said speech signal over the packet-switched network.

Galetto et al. teaches the determination of speech latency across a communication network element having an input interface and an output interface includes allocating a timestamp to the data packets of a sample of data packets representing a speech signal at the two interfaces, recording the timestamps together with the corresponding data packets, decoding the recorded data packets at both interfaces to generate respective envelopes in the time domain, cross-correlating the envelopes to determine correlating areas of the envelopes, and determining a value for the speech latency between the interfaces from the timestamps associated with correlating areas of the envelopes. (Abstract) Galetto, however, an audio filter module configured to duplicate, at the receiver terminal, at least a portion of the speech signal reconstituted by the telephony module, the duplicated portion of the speech signal

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constituting a second speech signal. Galetto, therefore, also fails to teach the subsequent limitations involving the calculation of the processing delay of the speech signal because the first and second speech signals are not both generated at the receiver terminal.

Psytechnics teaches a determination of end-to-end delay based on the additional information about the delay estimate from RTCP packets, coding and packetization delay, jitter delay, and access delay from both the send and receive side. (Pages 2-3) Psytechnics, however, an audio filter module configured to duplicate, at the receiver terminal, at least a portion of the speech signal reconstituted by the telephony module, the duplicated portion of the speech signal constituting a second speech signal. Psytechnics, therefore, also fails to teach the subsequent limitations involving the calculation of the processing delay of the speech signal because the first and second speech signals are not both generated at the receiver terminal.

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5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### Conclusion

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to GREG A. BORSETTI whose telephone number is
(571)270-3885. The examiner can normally be reached on Monday - Thursday (8am 5pm Eastern Time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHEMOND DORVIL can be reached on 571-272-7602. The fax phone Application/Control Number: 10/564,243 Page 15

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Greg A. Borsetti/ Examiner, Art Unit 2626

/Talivaldis Ivars Smits/ Primary Examiner, Art Unit 2626 1/27/2010